

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1-8. (Cancelled)

9. (New) A method for maintenance of a machine, having a function to determine an amount of payment for a maintenance service for the machine, the method comprising:

an operational condition data acquisition step of acquiring, by a sensor, operation condition data representing a physical quantity indicating an operation condition of a machine that is a target of maintenance service;

an alarming step of determining by a computer whether the machine is normal or abnormal based on the physical quantity indicated by the operation condition data acquired in the operational condition data acquisition step and based on a reference physical quantity, and generating a predetermined alarm by an output unit when determining that the machine is abnormal,

an operating time detecting step of acquiring an operating time of the machine by a measuring unit that measures a time during which the machine is turned on in a predetermined service period;

a quantifying step of computing an index value that indicates a quantified productivity of the machine over the predetermined service period based on the

operation time detected in the operation time detection step and a predetermined Operations Time;

a comparing step of comparing by a comparing unit the productivity of the machine quantified in the quantifying step with a predetermined productivity reference to compute a difference between the quantified productivity and the reference productivity; and

a charge amount determining step of reading charge information for converting the difference between the quantified productivity of the machine and the reference productivity from a charge reference value storage unit and determining an amount of charge for the maintenance service in the service period based on a difference between the charge information and the difference computed by the comparing unit in the comparing step.

10. (New) The method according to claim 9, further comprising:

a preliminary period operating time detecting step of detecting an operating time of the machine in a predetermined preliminary period by measuring using a measuring unit a length of time during which the machine is turned on in the predetermined preliminary period, and

a productivity reference determining step of determining the productivity reference by computing an index value indicating the quantified productivity of the machine over the predetermined preliminary period based on the operating time in the preliminary period, the operating time detected in the operating time detecting step, and the Operations Time in the preliminary period.

11. A system for maintenance of a machine, having a function to determine an amount of payment for a maintenance service for the machine, the system comprising:

an operational condition data acquisition unit that acquires, by a sensor, operation condition data representing a physical quantity indicating an operation condition of a machine that is a target of maintenance service;

an alarming unit that determines by a computer whether the machine is normal or abnormal based on the physical quantity indicated by the operation condition data acquired by the operational condition data acquisition unit and based on a reference physical quantity, and that generates a predetermined alarm by an output unit when determining that the machine is abnormal,

an operating time detection unit that acquires an operating time of the machine that measures a time during which the machine is turned on in a predetermined service period;

a quantifying unit that computes an index value that indicates a quantified productivity of the machine over the predetermined service period based on the operation time detected by the operation time detection unit and a predetermined Operations Time;

a comparing unit that compares the productivity of the machine quantified by the quantifying unit with a predetermined productivity reference to compute a difference between the quantified productivity and the reference productivity; and

a charge amount determination unit that reads charge information for converting the difference between the quantified productivity of the machine and the reference productivity from a charge reference value storage unit and determines an amount of

charge for the maintenance service in the service period based on a difference between the charge information and the difference computed by the comparing unit.

12. (New) The system according to claim 11, further comprising:

a preliminary period operating time detection unit that detects an operating time of the machine in a predetermined preliminary period by measuring using a measuring unit a length of time during which the machine is turned on in the predetermined preliminary period, and

a productivity reference determination unit that determines the productivity reference by computing an index value indicating the quantified productivity of the machine over the predetermined preliminary period based on the operating time in the preliminary period, the operating time detected by the operating time detection unit, and the Operations Time in the preliminary period.